AD-A160 918 THIRD PARTY FINANCING AND GENERIC APPLICATION FOR NAVY FACILITIES(U) NAVAL FACILITIES ENGINEERING COMMAND ALEXANDRIA VA B F WHITE 1985 1/1

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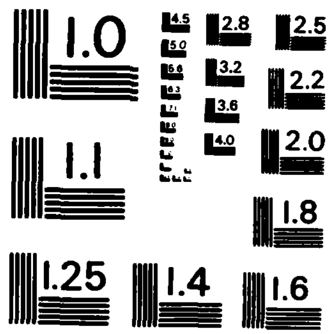

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Third Party Financing
and
Generic Application for Navy Facilities

by

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NAVFACENGCOM Code 2031

Presented at the
19th Annual Department of Defense
Cost Analysis Symposium
Xerox Training Center
Leesburg, Virginia
September 17 - 20 1985

THIRD PARTY FINANCING
and
GENERIC APPLICATION FOR NAVY FACILITIES

PREPARED FOR THE 19TH DoD COST ANALYSIS SYMPOSIUM
ACQUISITION STRATEGIES WORKSHOP 18 & 19 SEPT 1985

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I GENERAL BACKGROUND

During the past several years the Congress has developed legislation to encourage the Defense Department to enter into long term third party contracts for the purchase of energy products at military bases. More recently the Congress has extended this development to include other types of facilities that may be feasible to construct under third party financing. It appears that economic considerations will be paramount in identifying projects with potential third party funding payback and that private sector sources are willing to provide the initial capital for investment as opposed to government sources such as Military Construction Navy (MCON) funds. Third party funding directs private sector capital into public sector use which, in effect, tends to amortize initial investments over the long term and delay the full impact of expenditures on near term government budget deficits. The ultimate goal in considering third party options using MCON funding is lower initial investment costs with the key issue retained in selecting alternatives which provide the lowest facility life cycle costs.

II OBJECTIVES

A computer model has been developed for determining the total cost to the United States Government for leases involving third party financing. This third party financing model for new construction has been developed for evaluating the total cost to the U. S. Treasury for facilities built, operated and staffed for operations by private contractors as opposed to the standard procedure for Military Construction Navy (MCON). The total cost to the U. S. Government includes the Navy lease contracts plus any net tax benefits accrued by the contractor and less any land rents payable to the Navy. The model computes the net lease value, after tax benefits accrue to the third party, maintaining a fixed profit level to the contractor. This generic concept can apply to any Navy facility including those within the scope of Homeport Leasing projects.

III METHODOLOGY FOR THE GENERIC MODEL

To initiate the generic model, a contractor submits a bid quotation to the Navy for constructing and leasing a facility for a fixed annual profit based on an agreed percentage of the total cost of construction. The contractor can also agree to build, operate and maintain the facility for the Navy for a period of time called the life cycle. His total functional operating costs are then computed by the model to include all costs apparent to him such as overhead, facility operational expenses, interest payments and federal taxes. Federal taxes are a function of the contractor's profit level, or net taxable income, based on depreciation

allowances, investment credits, facility generated income and contractor tax rates which, in turn, will control the lease agreement to the Navy. The generic model methodology constructs the cost per unit service or cost per square foot as required, including Federal tax implications that continuously change each year as costs and profits change. The contractor's average profit over the life cycle remains fixed but annual profits are a function of the cost variables each year.

An application is provided in this report which displays the generic concept for third party investments owned and operated by an entrepreneur for the Navy as a specific example. In most cases the basic underlying assumptions or rationale for any facility remain the same for a third party approach. Such examples of third party financing serve to illustrate the interaction of costs that are not readily apparent to the casual observer. This application can also provide a starting point for evaluating other types of facilities that may be proposed as third party candidates in the future.

IV RESULTS

Results of the application of the model to third party financing are demonstrated by the following example using data from the model input files involving child care centers as an example. With a contractor bid of $2,500,000 for a 27,500 square foot facility, the 10 year contract life in our example produces a monthly income requirement of $425.37 per child, to build and operate as a third party enterprise. This is also equivalent to $36.20 per square foot construction and operating costs for the 10 year life cycle. These figures are predicated on a total functional occupancy of 22790/27500 = 83% (see print-out) In this model the labor component covers an 8 hour day with a 5 day week. The contractor requires a rate of return on his investment at 12%, with an overhead markup equal to 4% of the lease contract. The contractor also agrees to a land rent fee payment of $4,800 per year to the Navy. The print-out shows the model run for the sample center which indicates that the contractor would settle for a rent income of $1,065,986 per year to maintain his 12% profit after taxes and expenses. The optimum lease contract occurs at 42.64% of total investment in this case.

Investment credits are used up in the fourth year but the contractor pays federal taxes to the U. S. Treasury each year in this example. His maximum profit occurs in the third year, but the 10 year average profit remains at 12%. The contractor terminates his lease contract after 10 years but the straight line depreciation schedule has not been fully realized at this point. The contractor may or may not choose to amortize the sinking fund principal on the venture capital or the bond proceeds during the life cycle but this does not affect the economics of the center. If the contractor tries to recover <u>all</u> of his investment within the 10 year span, the sinking fund payments must be included in the lease contract. The model print-out shows that in ten years the principal payments total $97,671 as a recovery toward his initial investment of $375,000 venture capital, based on a 20 year payback

rate. The last matrix shows that the total cost to the U. S. Treasury for ten years is $9,953,697. The third party financing alternative remains cost effective if the MCON uniform annual cost is greater than $9,953,697/10 = $995,370 per year plus the annualized principal payments from the sinking fund. The discounted comparisons could favor third party financing because the annualized principal investment recovery increases in later years but military construction investment occurs in the early years.

V CONCLUSIONS

If the Congress will continue to support rapid depreciation for real property, regular investment credits, and low interest rates, it may insure that third party financing is a feasible alternative to military construction. Building Navy facilities under third party leasing agreements would certainly reduce initial capital outlays but could possibly increase costs over conventional rental rates in later years due to venture capital buy-outs or profit enhancements. At any rate, the entrepreneur's investment recovery would be deferred and the Government would have less pressure put on the federal deficit in the early years of construction. It remains to be seen if the total cost of contractor owned and operated facilities (COCO) will be less than the conventional military process.

Model sensitivity is not appreciably affected by changes in lease life cycle, investment tax credits, depreciation levels, maintenance costs, or corporate tax changes because of the trade-off between net U. S. Treasury costs and changes in rents to the Navy. In other words, the more the contractor charges in Navy rent, the more taxes he must pay to the Treasury. If his profit level remains constant during the facility life, then the optimum rent would be based on the contractor's net zero balance federal tax liability. This means that the Navy should negotiate rent payments so that the U. S. Treasury cost is minimized and not necessarily the contractor's net tax liability. This optimum rent to the Navy is produced by the model, which maintains a fixed profit profile for the investors after examining the tax implications. Does this computed rent figure preserve the maximum contractor incentives to construct and operate such facilities? At least we know the trade-off or break-even for the Treasury if the bidders are interested.

The third party model can help the decision makers to prevent contractors from over-charging on lease contracts but at the same time can alert the Navy to the net cost per unit under various circumstances. There still remains a trade-off decision between internal costs and any government subsidies to alleviate that cost. Any subsidy, in effect, contributes to the income of the facility but should not be construed as lower rent in the model formulation because the contractor does not see this pass-through cost in his operation. The contractor should not be allowed by Navy regulation to negotiate an increase in his profits or run an inefficient operation because of any government subsidies which may be authorized for the operation. Remember that any government subsidy increases the net cost to the Treasury which merely transfers an apparent lower Navy lease contract to one of higher total government cost.

Conditions which favor third party financing are those which have a potential for large occupancy levels or functional saturation, a low interest investment cost environment, and low marginal profits for venture capitalists or contractors. There is no optimum facility size, but there would be a minimum sized facility where costs would increase very rapidly due to lack of facility use to offset the cost of required management and overhead levels.

The contract is usually a Lease Agreement with third party principal loan payments (Venture Capital & Bond Financing) amortized by the contractor. Principal payments are part of the sinking fund annual amortization constant and can be handled separately, either by increasing the lease amount with the contractor curtailing the investment, or by deferring the principal payments and increasing the contractor's equity to be bought-out at the end of the life cycle This aspect can be mutually agreed upon but has no effect on the economics of the facility operations.

Interest payments on the total investment are part of the contractor costs, subject to final tax exclusion or deduction. Third Party members provide the funds for construction and may include a syndicate of investors and/or other venture capitalists. In this model construction funds are raised by a group of individual investors in addition to a public bond sale. There are many methods for financing each facility but the internal model rationale generally remains the same.

The net annual cost to the U. S. Treasury is the undiscounted cost streams of the Navy lease payments reduced by any land rents from the third party, less any income generated by the facility in excess of total operating costs, plus any Government subsidies issued to run the facility. The model is based on an equilibrium function, setting the annual contractor profits to a fixed percentage of invested capital and computing the annual lease payment that the Navy must pay as rent, considering the contractor tax credits, depreciation allowances, and other costs involved. The annual costs vary according to the above criteria and the minimum Navy rent or lease payments computed as the break-even point to the Treasury.

Because of third party emphasis for construction projects by the government in general and requirements for facilities financing in particular, many private companies are exerting pressure on the Congress through their lobbyists to build various types of facilities for the government. Private sector capital seeks the most profitable level of investment and several groups already in existance are bidding for this government business, including complete facility construction and operation. It remains to be seen if the total private sector cost to the government can be contained below the present levels of military construction. The greatest clamor by the lobbyists is that they can do it cheaper. But the key questions are: ..... will the long term effects be less costly and ..... do the advantages of delayed budget deficits out-weigh the possibility of even higher out-year costs over the life cycle?

APPENDIX A

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A. NAVFAC HISTORY WITH THIRD PARTY FINANCING

Most of the experience NACFAC has had in third party financing to date has been in the energy field, including geothermal development at COSO Hot Springs & China Lake, CA and Fallon, NV. The Navy is having success, accordingly, at Adak, AK developing an RFP for electricity production to be built by a private contractor as third party. Steam purchase contracts at the Naval Station and Naval Training Center, San Diego, CA have recently been renewed under third party affiliates. Other areas of experience have been used in developing RFP's for the Navy for methane gas production, Capehart Housing, Section 801/802 Housing, and even Naval base restaurant facilities. It is difficult, however, to evaluate the benefits of third party involvement in the above energy areas because of unavailable historical data or because data is not traditionally recorded for the purposes of determining cost comparisons in all phases of operations. Historically, the third party concept has not been evaluated by the government to the extent that such an evaluation includes contractor tax liability and credits which can impact his profit level and consequently make a case for reducing investments costs to the Navy.

B. MOST RECENT CASES AND DEVELOPMENTS - CHILD CARE CENTERS

Some recent cases of third party financing have surfaced outside the Navy; i.e. Fort Lewis, Washington area and some real estate acquisitions for the U. S. Post Office in Washington, D. C. Several A & E firms have entered the competition for offering services for Navy child care centers in the past few months. Some of these designs can be competitive to private sector developers which include Delta Health Care Support Company, Technical Personnel Services Company, Werner-Herbison-Padgett Company, and various architectural consulting firms. There are 20 Navy Child Care projects nearly completed that were scheduled in the Fiscal Years 1982 through 1984 that may soon begin generating data for MCON comparisons. The most recent cases in the Navy are four projects in the FY1985 Military Construction Program, none of which have reported completion rates yet because initial construction is just beginning.

Pensacola, FL.	NAS	P-536	$ 1,899,000	15,000 sq ft.
Corpus Christi, TX.	NAS	P-251	$ 578,000	6,830 sq ft.
Long Beach, CA.	NS	P-169	$ 1,130,000	10,000 sq ft.
Camp Pendleton, CA	MCB	P-943	$ 2,335,000	18,750 sq ft.

However, two prototype facilities for third party financing efforts initiated by the Navy were selected from the FY1986 Program are Twenty-Nine Palms, CA and the San Diego Center in Murphy Canyon. Both of these will be child care projects under study for Navy Third Party financing review.

C. CONTINUING PRESSURES

There is considerable pressure on the military services from the Congress to investigate the economics of third party financing at this time, particularly in the area of child care facilities. Currently each of the Tri-Services are mandated to develop a prototype facility using third parties, including the total facility operations and/or subcontracted child care. The Davis-Bacon Act is still upheld on labor rates and any justified government subsidies are maintained if needed. Specifically, the Navy is following through with projects at MCAS Twenty Nine Palms, California and San Diego, Murphy Canyon sites for child care centers which are in the FY1986 Program. These are critical areas in need of facilities for military personnel with small children.

In addition to military family housing and energy systems & products, the House Armed Services Committee (HASC) and the Senate Armed Services Committee (SASC) are under continual pressure by constituents, developers and entrepreneurs for third party contracting of facilities and services. Other pressures come from the military services because of retention rates, morale, and economics envolved in the care of young family members with working mothers. Now, more than ever before, both parents are usually employed full time which produces a critical need for low cost day care across the entire spectrum of military family personnel. In fact, the same requirement is emerging in the private sector in all walks of life. The services are responding to these requirements by investigating the potential costs of third party involvement, hopefully, without adding significantly to the existing appropriation limits on construction.

APPENDIX B

APPENDIX B

A. THIRD PARTY FINANCING MODELS

Third party financing models developed for Navy Homeporting Facilities have an inherent fixed rationale that can be applied to any government investment for evaluation and comparison to standard MILCON procedures. Decision criteria for third party facilities are established in the same manner as economic alternatives specified in the Economic Handbook (P-442) for Secondary Analyses. After the third party financing model is run, the lease output value and operational costs are provided as input to the standard economic model for determiming the least cost alternatives with respect to military construction.

1. THE MODEL RATIONALE

To start the optimization sequence for the correct annual lease payments to be made by the Navy, a preliminary low value is computed such as .05 x total capitalization. This value is increased by the model until the increase in tax liability to the contractor is offset by the increase in his operating costs. This increase in rental income to the contractor tends to increase his taxes which in turn decreases his profits and therefore decreases his taxes. The net effect must be recomputed until an optimum balance is found between tax changes and profit changes. The result is expressed as a percentage of total investment that is to be charged to the Navy as rent.

The next step is to compute the annual overhead costs from the combined cost variables in the annual lease, plus any land rent to be recieved from the contractor. The rationale that surfaces in the model is that the contractor will have to manage his rental income as well as his land payout cost at some projected staffing or management overhead level, usually specified by him as a percentage.

With these two steps above and the input data provided from the data worksheet, the contractor's tentative taxable income can now be computed. This is not his final taxable income because of changes mentioned in the first step above. However, at this point for the first pass through the model, taxable amounts are computed from the initial rent figure computed in the first step: lease income less the following values.

land rent
overhead
maintenance costs
interest payments on financing
depreciation allowances
operating costs

Next, the amount of tax is estimated, given the corporate rate structure and investment credits allowed. This step is complicated due to

carrybacks & carryforwards that may exist in regular investment credits and other limitations in the amounts of tax applicable.

The contractor's total operating costs are then computed by adding the land rent, overhead, interest, taxes, other capitalization, maintenance, and staffing labor each year. At the end of the life cycle, the contractor can recover his equity, but meanwhile the original investment is continually amortized from a sinking fund, both for the venture capitalists and the bond holders.

At this point, the contractor profits are computed by subtracting the following costs from the estimated annual lease (rent) figure computed in the beginning.

land rent
overhead
maintenance costs
interest payments on financing
income taxes payable
other capitalized expenditures
operating costs

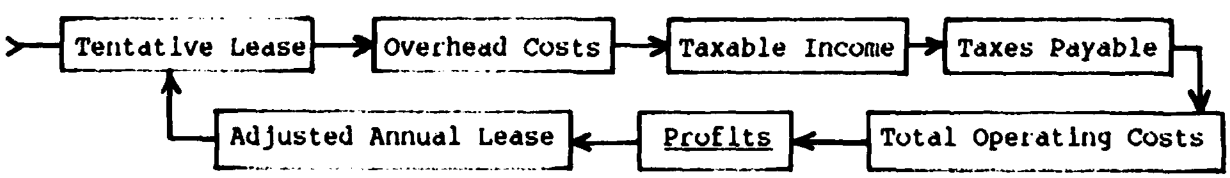
The last step is to recycle the above sequence after computing the new lease amount to be used in the first step above. This is derived by computing the taxes payable and the operating costs payable over the life cycle. From this the average life cycle profits are computed and matched to the percentage of investment in the first step above. The following iteration is used to solve for the optimum lease amount.

Given: Profits = Percent Profit x Investment

Computed: Profits = Annual Lease - Costs

This new value for the Navy lease is entered into the first step and new profit computations made until the sequence produces a balance between the given contractor expected profits and the model computed profits. In other words, this final balance produces the <u>lowest possible</u> Navy rent, while maintaining an established profit level, considering the current tax laws for corporations and the costs involved in the project.

In summary, the rationale proceeds from left to right or clockwise for computing the optimum annual lease (rent) values. In this sequence, the profits are held constant and the tentative lease is updated to the final lease value after several iterations through the model. All other costs are provided as input to the model. Each variable is recomputed with each pass through the cycle.



2. FACTORS AND ASSUMPTIONS REQUIRED

To load the model for execution six (6) general area inputs are required in the following form or headings which are shown in the following section in greater detail.

Raising Investment Capital
Current Tax Laws
Operating Costs (Base Loading)
General Construction Data
Maintenance costs
Other Capital costs

Other information is included in the model at market rates or at commonly accepted values, such as employee fringe benefits, overhead management markup or fees, and markup on any subcontracts, if applicable. Model outputs include five general areas that provide the user with decision data for evaluating third party contracts: Program output based on costs using third parties, MILCON output based on costs, Print-outs of all cost streams over contract life, Total annual cost to the U.S. Treasury, and Graphics displays.

Contractor assumptions or investment rates are supplied internally to the model at market rates for certain types of financing. There are three items that can be specified by the model user as follows.

Annual capital Rate of Return (ROR) on contractor investment	__________%
Annual cost markup for overhead management	__________%
Annual cost markup on labor subcontracts (employee benefits)	__________%

Depreciation options include the following methods which the IRS has approved for commercial real property; 15 years accelerated, 18 years straight line, 20 years straight line, 25 years straight line, 30 years straight line, and 40 years straight line.

Cost discounting equals 10%, based on the OMB Circular A-76, with a continuous compounding convention and no differential escalation of costs unless energy projects are evaluated. There is also a consensus of opinion that discounting should be based on end-of-year compounding but specific guidance has not been forthcoming from OMB.

B. GENERIC MODEL FORMAT

The structure of information needed to supply the basic model input is defined below. Each format is tailored to the specific Homeporting facility that needs to be evaluated. The essential elements remain basically unchanged but special inclusions can be made for special circumstances such as laboratories or high technology research centers. The format that follows is for general case facilities that may lend themselves to third party financing.

MODEL INPUT LOAD SHEET

THIRD PARTY FINANCING DATA

1. Raising Investment Capital

Venture capital amount $ __________ ______ Yrs ______%

Bonds sold $ __________ ______ Yrs ______%

Contractor total bid price $ __________

2. Consideration of Current Tax Laws

Years of depreciation ______ Yrs (SL)

Business investment credits allowed ______ yes ______ no

Energy investment credits allowed ______ yes ______ no

Interest payments subject to fractional exclusion _____ yes _____ no

3. Base Loading Data

a. Depot/Logistics Information _____ Num
b. Ships _____ Num
c. Feet of Berthing _____ Num
d. Aircraft _____ Num
e. Feet of Runway _____ Num
f. Training Information _____ Num
g. Personnel _____ Num
h. Square Feet of Administrative Space _____ Num
i. Square Feet of Warehouse Storage _____ Num

4. General Construction Data

Total investment costs for MILCON $ __________

Total square feet under construction __________ Sq Ft.

Contract years or Life Cycle (Navy to repurchase) ______ Yrs

Land lease cost per year to contractor $__________

5. Maintenance Costs

O & Mn costs	$________ Yr____to Yr____,	$________ Yr____to Yr____
Utitities	$________ Yr____to Yr____,	$________ Yr____to Yr____
Janitorial	$________ Yr____to Yr____,	$________ Yr____to Yr____
Subsidies	$________ Yr____to Yr____,	$________ Yr____to Yr____
Other costs	$________ Yr____to Yr____,	$________ Yr____to Yr____

6. Other Considerations, If Applicable

Facility equipment to be capitalized in future years $ _______ Yr____
$ _______ Yr____
$ _______ Yr____

APPENDIX C

APPENDIX C

A. CHILD CARE CENTER APPLICATION

The model supplies the interaction that takes place and provides a minimum rent to sustain the contractor at a fixed profit percentage on the total investment. In this example, child care labor rates, rate of return on the investment, financing rates for bonds & venture capital, and the number of children using the facility have a large impact on the average cost per child. Keep in mind that although the model shows no risk factor for the contractor or third parties, by maintaining a constant profit and return on investment, there exists the potential for negotiation in rent payments or government subsidies if the number of children decrease over time. If the contractor assumes the risk and accepts a fixed contract for lease income from the Navy, this could produce a premium in government costs above the model cost because of these disincentives.

Child care centers require some additional data not specified on the generic form. This would be true for all facilities to some degree but the important thing is to collect all life cycle data relevant to the project under review. For this application the following data is incorporated into the model along with Load Sheet information.

Age group	Max module size	Max sq ft	Max grp size	Staff ratios
a.	20	1200	10	1:5
b.	20	1200	10	1:5
c.	20	1200	10	1:5
d.	32	1600	16	1:8
e.	32	1600	16	1:8
f.	40	2050	20	1:10
g.	40	2050	30	1:15
h.	30	1550	36	1:18

Average wages paid to staff = $ 5.35 per hour, based on low rate for caregivers ($3.79) to high rate for directors ($9.14).

MODEL INPUT LOAD SHEET

THIRD PARTY FINANCING DATA

1. Raising Investment Capital

Venture capital amount	$ 375,000	20 Yrs	11.0 %
Bonds sold	$ 2,125,000	20 Yrs	11.0 %
Contractor total bid price	$ 2,500,000		

2. Consideration of Current Tax Laws

Years of depreciation	20	Yrs (SL)		
Business investment credits allowed	X	yes		no
Energy investment credits allowed		yes	X	no
Interest payments subject to fractional exclusion		yes	X	no

3. Child Care Data

a.	Infants	Age group infants to 9 mos	22	Num
b.		Age group 9 mos to 14 mos	24	Num
c.		Age group 14 mos to 18 mos	18	Num
d.	Toddlers	Age group 18 mos to 24 mos	32	Num
e.		Age group 2 yrs to 3 yrs	41	Num
f.	Pre-schoolers	Age group 3 yrs to 4 yrs	36	Num
g.		Age group 4 yrs to 5 yrs	17	Num
h.		Age group 5 yrs & up	05	Num

4. General Construction Data

Total investment costs for MILCON	$ 2,500,000	
Total square feet under construction	27,500	Sq Ft.
Contract years or Life Cycle (Navy to repurchase)	10	Yrs
Land lease cost per year to contractor	$ 4,800	

5. Maintenance Costs

O & Mn costs	$ 2,500	Yr 1	to Yr 6,	$ 3,000	Yr 7	to Yr 30
Utilities	$ 1,400	Yr 1	to Yr 10,	$ 1,600	Yr 11	to Yr 30
Janitorial	$ 500	Yr 1	to Yr 4,	$ 900	Yr 5	to Yr 30
Subsidies	$ 1,000	Yr 1	to Yr 12,	$ 1,000	Yr 13	to Yr 30
Other costs	$ 300	Yr 1	to Yr 30,	$	Yr	to Yr

6. Other Considerations, If Applicable

Child care equipment to be capitalized in future years	$ 5,600	Yr 5
	$ 3,000	Yr 7
	$ 8,000	Yr 12

Certain other data can be specified by the model user such as staffing costs per hour per age group, staffing ratios per age group, staffing hours worked per day, average amount of child care expenses that are tax deductible to contractor per year (not labor), if such information is known or available. Other information is included in the model at market rates or at commonly accepted values, such as employee benefits, overhead management markup, and markup on any subcontracts.

Annual capital Rate of Return (ROR) on contractor investment	12.0	%
Annual cost markup for overhead management	4.0	%
Annual cost markup on labor subcontracts (employee benefits)	15.0	%

B. MODEL EXAMPLE WITH SENSITIVITY AND GRAPHICS

One of the first computations in the model deals with staff ratios and modular sizes for finding the annual child care costs. Table C-1 displays the result of the annual computation for these costs based on child care input data for the eight age groups in our example.

ANNUAL CHILD CARE COSTS

CHILD AGE GROUP	STAFF HOURLY RATE	SHIFT LENGTH HOURS	NUMBER OF CHILDREN BY GROUP	STAFF RATIO	STAFF NUMBER	TOTAL STAFFING COST BY AGE GROUP
1	5.35	2080	22	5	5	55640.00
2	5.35	2080	24	5	5	55640.00
3	5.35	2080	18	5	4	44512.00
4	5.35	2080	32	8	4	44512.00
5	5.35	2080	41	8	6	66768.00
6	5.35	2080	36	10	4	44512.00
7	5.35	2080	17	15	2	22256.00
8	5.35	2080	5	18	1	11128.00
			195			344968.

An example of model sensitivity is displayed in Table C-2 for a child care facility costing $1,050,000 to show the impact of certain variables on child care income levels needed to fully support a contractor managed facility. Each variable incremented is listed for the base case then changed to other values to monitor the resultant annual lease (Navy rent) payment and the monthly child support income required. Input changes in the lease life cycle, investment tax credits, depreciation levels, maintenance costs, or imputed corporate tax changes do not tend to produce a significant change in total cost to the U. S. Treasury. This is true because any cost change is absorbed by the change in net lease income to

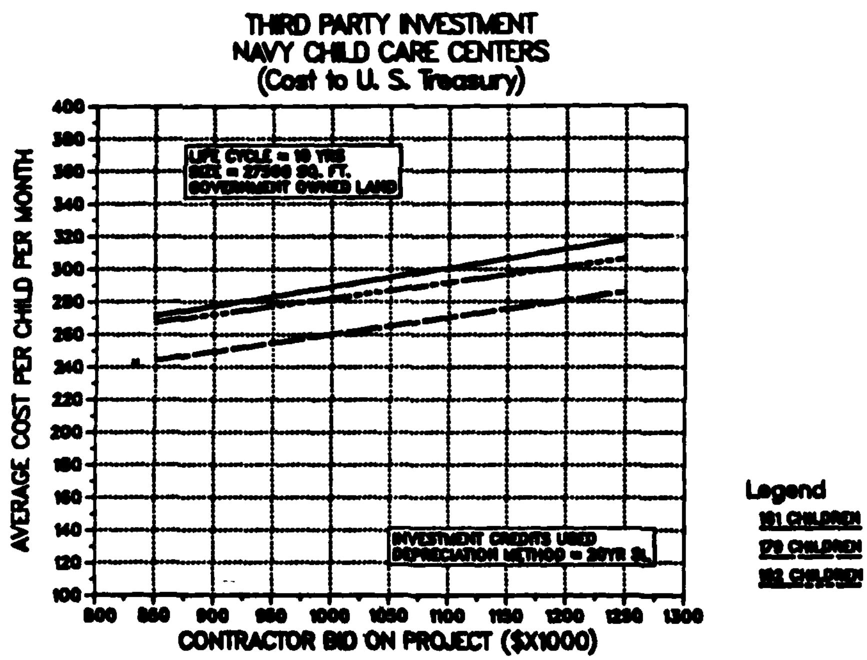
TABLE C-2
Model Sensitivity
(Third Party Financing)

Child Care Center
Total Capital Investment = $ 1,050,000
Total Square Feet = 27,500

Variable	Base Comparison			Input Change			Percent Change	
	Input	Output		Input	Output		Input	Output (Child) (Care)
		Net Annual Rent	Child /Month Cost		Net Annual Rent	Child /Month Cost		
Lease Life	10yrs	578,294	265.38	5yrs	577,098	268.67	-50	+1.24
Inv Credit	yes	578,294	265.38	no	596,427	265.55	-	+.06
Deprec.	20yrs	578,294	265.38	30yrs	591,486	265.51	+50	+.05
Care Rates	5.35	578,294	265.38	6.35	639,314	293.79	+18.7	+10.7
ROR	12%	578,294	265.38	14%	615,871	275.51	+.17	+3.82
Maintenance	7300	578,294	265.38	10300	581,355	266.81	+41.1	+0.54
Financing	11%	578,294	265.38	13%	599,796	275.39	+18.2	+3.77
Children	179	578,294	265.38	78	434,652	455.56	-56.4	+71.7
Imputed Tax	8250	578,294	265.38	13250	586,771	265.46	+60.6	+.03

the contractor as well as changes in his taxes payable. This produces an apparent child care constant cost but in reality the change in cost is evident in either an additional rent increase and/or a preferential tax credit from the U. S. Treasury.

Following the sensitivity chart as Table C-2, a graphic display is shown as Graph C-1 using the original data giving the computed monthly child care charges necessary to support the center for different contractor construction bids, all other things being equal for the base case. The final curve, Graph C-1, gives an indication of the effect of child care costs based on the number of children supervised at the center. If fewer children are enrolled, the operating expenses are shared by less people and the average cost per child increases. If more children are enrolled, the additional staffing requirements sometimes offsets the income produced and the average cost per child increases also. The general shape of this curve depends on a number of factors in the design, construction and operation of child care centers. The most important factors are addressed in the model which can be adapted to all kinds of facilities.



GRAPH C-1

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